

CLAIMS

1. Dose indicator (A) for fluid product dispensing device (B) comprising at least one rotary counting means (10) which can be moved in rotation, said at least one counting means comprising indication means (15) indicating the number of doses dispensed or remaining to be dispensed, said at least one counting means being actuated by an actuating member (35) itself actuated by a transmission element (34) adapted to cooperate with one part (54) of said dispensing device on each actuation thereof, characterized in that said dose indicator comprises amplification means adapted to amplify the movement of said transmission element (34) on each actuation, so that the movement of said actuating member (35) is greater than the movement of said transmission element (34).

2. Indicator as in claim 1, wherein said at least one rotary counting means comprises a rotary counting wheel (10) comprising cogging (19), said cogging (19) cooperating with actuating means (31,34,35) adapted to cause said rotary wheel (10) to rotate, said actuating means comprising a flexible lug (31) comprising a first flexible lug part (32) and a second flexible lug part (33) more rigid than the first lug part (32), the first lug part (32) bearing an actuating tooth (35) adapted to cooperate with cogging (19) of said rotary counting wheel (10) on each actuation of the device, the second lug part (33) bearing the transmission element (34) adapted to cooperate with said fluid product dispensing device (B) whenever it is actuated, the second lug part (33) being attached firstly to said first lug part (32) and secondly to said transmission element (34) resulting in an amplified movement of said actuating tooth (35) with respect to the movement of said transmission element (34).

3. Indicator as in claim 2, wherein said flexible lug (31) is joined to a ring (30) surrounding said cogging (19), said flexible lug (31) coming to cooperate with said cogging (19) whenever a dose is dispensed.

4. Indicator as in claim 3, wherein said ring (30) comprises anti-reverse means (36, 37) preventing said rotary disc (10) from rotating in the opposite direction to the direction induced by said flexible lug (31).

5. Indicator as in claim 3 or 4, wherein said ring (30) comprises an abutment (39) adapted to cooperate with a locking element (38) joined to said flexible lug (31) to limit the rotation of said rotary counting wheel (10).

6. Indicator as in claim 5, wherein the second, more rigid lug part (33) is adapted so that it deflects on and after the time the locking element (38) is locked by the abutment means (39) of the ring (30).

7. Indicator as in any of claims 2 to 6, wherein the rotation of the rotary counting wheel (10) occurs at the start of the actuation distance of the fluid product dispensing device (B), the flexion of the second, more rigid lug part (33) enabling said actuation distance of the fluid product dispensing device (B) to be completed up to its end despite locking of the locking element (38) by the abutment means (39).

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8. Indicator as in any of the preceding claims, wherein said transmission element (34) is a shoulder joined to a flexible lug (31) and cooperating with one part (54) of the

fluid product dispensing device (B) which is mobile during actuation.

9. Indicator as in any of the preceding claims, wherein
5 the indicator (A) comprises a translatable member (20) which
can be moved in translation, the indication means (15)
cooperating with a display opening (25) provided in said
translatable member (20), said rotary counting wheel (10)
comprising a hollow profile (18) cooperating with a projection
10 (28) of said translatable member (20), the shape of said
hollow profile (18) being such that at least some rotations of
said at least one counting means comprising a rotary counting
wheel (10) give rise to translation of said translatable
member (20), modifying the position of said translatable
15 member (20) with respect to said counting wheel (10).

10. Indicator as in claim 9, wherein said rotary
counting wheel (10) and said translatable member (20) are
arranged in a lid (40) comprising a display window (45)
20 cooperating with the display opening (25) of the translatable
member (20).

11. Indicator as in claim 10, wherein the rotary
counting wheel (10), the translatable member (20), the
25 actuating means (31, 34, 35) and the lid (40) form a unit
which can be assembled in a fluid product dispensing device
(B).

12. Indicator as in any of claims 9 to 11, wherein said
30 indication means (15) follow said hollow profile (18) at least
in part.

13. Indicator as in any of claims 9 to 12, wherein the shape of said hollow profile (18) is irregular so that dose indication is progressive.

5 14. Indicator as in any of claims 9 to 13, wherein said hollow profile (18) is at least partly of spiral shape.

15. Indicator as in any of the preceding claims, wherein said indication means (15) are numbers and/or symbols.

10 16. Indicator as in claim 1 or 2, wherein said amplification means transform a translation movement (a) of the transmission element (34) into a rotary movement of the actuating member (35), the translation projection of said 15 rotary movement being $\alpha.a$, where $\alpha > 1$.

17. Indicator as in claim 2, wherein said second flexible lug part (33) comprises an elastically deformable structure.

20 18. Indicator as in claim 17, wherein said second flexible lug part (33) comprises two branches (33a, 33b) forming an ovoid structure having two opposite apexes formed firstly by the transmission element (34) and secondly by the 25 junction (J) with the first lug part (32), said ovoid structure able to be stretched by movement of said transmission element (34) and returning elastically to its rest position the transmission element is not urged anymore.

30 19. Fluid product dispensing device (B) comprising a product reservoir (51) and a dispensing member (52) such as a pump or valve mounted on said reservoir (51), characterized in

that it comprises a dose indicator (A) as in any of the preceding claims.

20. Device as in claim 19, wherein the dose indicator
5 (A) is actuated by one part (54) of the dispensing device (B)
which is moved during actuation of device (B) and which
cooperates with a transmission element (34) of said indicator
(A).